



Best in CLASS

(Conceptual Learning Application for Sustainable Schools)

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What is Best in CLASS?

The Concept

- "Best in CLASS (Conceptual Learning Application for Sustainable Schools)" is a project idea that arose out of brainstorming for an EPA grant.
- Best in CLASS is a combination training module/computer game designed to raise sustainability awareness for high school seniors.
- The objective is:
 - to promote energy efficiency and sustainability education and realistic practices in schools;
 - encourage high school seniors to pursue education and careers in engineering and energy management, STEM; and
 - facilitate active learning and engagement through on-line educational resources and tools.

What is Best in CLASS?

The Program Design

- Video training modules would be developed for 5 to 7 topics:
 - Sustainability overview;
 - LEED building;
 - Lighting;
 - Heating, cooling, and insulation;
 - Electronics;
 - Daily operations, supplies, and materials;
 - ‘Payback’ economics; and
 - Other categories – water resources, food services, xeriscaping, etc.



What is Best in CLASS?

The Program Design (continued)

- Video training modules would be developed for 5 to 7 topics.
- Students would enter a "virtual school" where they can make changes to increase the school's energy conservation and sustainability efforts.
- A "virtual library" would be an additional resource base for the students, and would contain EPA and other publicly-available reference materials.
- As students pass quizzes based on knowledge from the various topic modules and resource library, different tools (e.g., light meter, thermal imaging camera, volt meter,) would be unlocked to help the students better assess opportunities for sustainable energy management.

Preliminary Work

The Program Designers

- Students from K-State's Computing and Information Sciences Department within the College of Engineering began working on program prototypes in the Fall of 2010, and continue working on said prototypes in the Spring 2011 semester.
- Two program teams worked on prototypes individually, basing the computer game platform off of "OGRE" (Object-Oriented Graphics Rendering Engine), a scene-oriented 3D rendering engine written in C++.



Game Prototype Demonstrations

Two Presenting Groups:

Students from CIS 541 – Software Engineering

- SE4
 - Jacob Herald
 - Patrick Rausch
 - Robert Harrold
- SE5
 - Brad Lewis
 - Donald Lee
 - Kyle Rickert
 - Victor Kovalev



Questions After Demos

For questions regarding environmental and energy-related issues:

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For questions regarding the computer program:

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